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EXAMINER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/584,212 | Applicant(s) YUAN ET AL. | |
| | Examiner ZEWDU BEYEN | Art Unit 2416 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

- This action is responsive to amendment dated 06/03/2009.
- Applicant's amendments filed on 06/03/2009, has been entered and considered.
- Claims 1-12 are canceled
- Claims 13-23 are pending.
- The rejection to the 35 USC § 112 rejections is hereby withdrawn in view of Applicants' amendment
- Claims 13-23 stand rejected.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13- 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 13, recites the limitation “ recording a first address and port in an IP header of a signaling message of a call received from the NAT server or FW in the first network” ; however, the preamble recites proxy server located in a second network. Thus, the two phrases contradict each other.

In claims 13, and 18 recite “the address” it is not clear whether the phrase referring to "first address" or "second address"

In claims 13, and 18, recites “recording a first address and port in an IP header of the signaling message” and “modifying the first address and port into a second address and port assigned for the call in the second network” it is not clear the difference between the first address and the second address.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 13- 19, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Read to (US-PGPUB-20040037268) , in view of Young to (US-PGPUB-2003/0093563)

Regarding claim 13, Read teaches a method for implementing traversal through a Network Address Translation (NAT) server or a firewall (FW) located in a first network, the method being implemented in a proxy server located in a second network outside the NAT server or FW, the method comprising(see fig.1):

recording a first address and port in an IP header of a signaling message of a call received from the NAT server or FW in the first network ([0089] **discloses The H.323 setup message 51 reaches the proxy server 42, which determines the location of user B, and composes a similar H.323 new setup message 52 to send there. This new setup message 52 contains the identities of A and B, and the true IP address 44 (e.g. 45.6.7.8) of the proxy server 42 and the true IP address 16 (e.g. 10.1.1.1) of the terminal B1 12. The proxy server 42 then sends this message 52 from a pre-assigned port 55, here port number 2777, to the public IP address 17 (e.g. 206.1.1.1) of terminal B1 12; the IP packets are labelled with the IP address 44 of the proxy server 42 as source, and the public IP address 17 of terminal B1 12 as destination)**

modifying the first address and port into a second address and port assigned for the call in the second network ([0089] **discloses The H.323 setup message 51 reaches the proxy server 42, which determines the location of user B, and composes a similar H.323 new setup message**

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52 to send there. This new setup message 52 contains the identities of A and B, and the true IP address 44 (e.g. 45.6.7.8) of the proxy server 42 and the true IP address 16 (e.g. 10.1.1.1) of the terminal B1 12. The proxy server 42 then sends this message 52 from a pre-assigned port 55, here port number 2777, to the public IP address 17 (e.g. 206.1.1.1) of terminal B1 12; the IP packets are labelled with the IP address 44 of the proxy server 42 as source, and the public IP address 17 of terminal B1 12 as destination)

analyzing the information in the signaling message ([0089] **discloses The H.323 setup message 51 reaches the proxy server 42, which determines the location of user B, and composes a similar H.323 new setup message 52 to send there. This new setup message 52 contains the identities of A and B, and the true IP address 44 (e.g. 45.6.7.8) of the proxy server 42 and the true IP address 16 (e.g. 10.1.1.1) of the terminal B1 12. The proxy server 42 then sends this message 52 from a pre-assigned port 55, here port number 2777, to the public IP address 17 (e.g. 206.1.1.1) of terminal B1 12; the IP packets are labelled with the IP address 44 of the proxy server 42 as source, and the public IP address 17 of terminal B1 12 as destination. Thus, Inherently the response message has to be analyzed by the proxy for forwarding purpose)**

delivering the signaling message to a processing device of packet voice signaling or a service processing device in the second network([0092] **discloses The H.323 message 53 contained in the packets is not changed, but because the proxy server 42 inserted the true IP address 16 before sending the message 52, the message 53 forwarded by the router 34 now has the**

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correct IP address 16. This forwarded message 53 contains information that identifies the call as originating with the user at terminal A1 10))

modifying a third address and port in the IP header of a response signaling message from the processing device into the first address and port([0114] **discloses the terminal B1 12 replies with an "open logical channel acknowledge, response 66 that contains the true IP addresses 16 of terminal B1 12, and the port numbers of the dynamic ports 35 that the terminal B1 has opened);**

analyzing the information in the response signaling message([0117] **discloses the proxy server 42 transmits an "open logical channel acknowledge" response 68 to the public IP address 18 of terminal A1 10 to tell the terminal the ports that will receive the audio signal. Thus, Inherently the response message has to be analyzed by the proxy for forwarding purpose);**

modifying the address and port of a response signaling in the response signaling message into the recorded address and port of the call signaling in the signaling message([0115] **discloses The "open logical channel acknowledge" message 66 gives the RTP and RTCP addresses of the terminal B1 12, here 10.1.1.1/PB2 and 10.1.1.1/PB3. This message 66 is placed into IP packets having a source IP address equal to the true IP address 16 of the terminal B1 12, and a destination address equal to the IP address 44 of the proxy server 42. The message 66 passes through the router 34 which uses the simple NAT function to forward a translated message 67 to the proxy server 42 having the true IP address 16 of terminal B1 12 changed to the public IP address 17. The packet reaches the proxy server 42, which uses the dynamic port numbers from the message plus the public IP address (206.1.1.1) of terminal**

B1 12 to open its pre-assigned ports 33 to send the audio signal to terminal B1

12. Furthermore, [0117] discloses the proxy server 42 transmits an "open logical channel acknowledge" response 68 to the public IP address 18 of terminal A1 10 to tell the terminal the ports that will receive the audio signal. In this example, the message lists the pre-assigned ports 2776/UDP and 2777/UDP at the proxy server 42 as the ports for RTP and RTCP respectively. The router 32 modifies the IP address of the terminal in the IP packet of the forwarded message 69, but makes no change to the response itself. The terminal receives this message 69, and begins to send the audio signal);

sending the response signaling message to the NAT server or FW in the first network[0117]
discloses the proxy server 42 transmits an "open logical channel acknowledge" response 68 to the public IP address 18 of terminal A1 10 to tell the terminal the ports that will receive the audio signal. In this example, the message lists the pre-assigned ports 2776/UDP and 2777/UDP at the proxy server 42 as the ports for RTP and RTCP respectively. The router 32 modifies the IP address of the terminal in the IP packet of the forwarded message 69, but makes no change to the response itself. The terminal receives this message 69, and begins to send the audio signal).

Read does not explicitly teach recording the address and port of a call signaling in the signaling message and the address and port of Real-time Transfer Protocol (RTP) and Real-time Transfer Control Protocol (RTCP) of a media stream in the signaling message;
modifying the address and port of the call signaling into the address and port of the call signaling of the second network assigned for the call;

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modifying the address and port of RTP and RTCP into the address and port of the second network assigned for the media stream;

modifying the RTP and RTCP address and port of a media stream in the response signaling message into the recorded RTP and RTCP address and port of the media stream in the signaling message;

However, Young teaches recording the address and port of a call signaling in the signaling message and the address and port of Real-time Transfer Protocol (RTP) and Real-time Transfer Control Protocol (RTCP) of a media stream in the signaling message(**[0078] discloses to keep track of the connections for RTP forwarding maintains a database map between private and public IP addresses and UDP ports**) ;

modifying the address and port of the call signaling into the address and port of the call signaling of the second network assigned for the call(**Young , [0075]-[0076] discloses session description protocol and SIP messages are modified so that as connections are opened for RTP streams , the appropriate public or private IP addresses and UDP ports are used**);

modifying the address and port of RTP and RTCP into the address and port of the second network assigned for the media stream (**Young , [0075]-[0076] discloses session description protocol and SIP messages are modified so that as connections are opened for RTP streams , the appropriate public or private IP addresses and UDP ports are used**);

modifying the RTP and RTCP address and port of a media stream in the response signaling message into the recorded RTP and RTCP address and port of the media stream in the signaling message (**Young , [0075]-[0076] discloses inbound and outbound session**

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description protocol and SIP messages are modified so that as connections are opened for RTP streams , the appropriate public or private IP addresses and UDP ports are used);

Therefore it would have been obvious to one ordinarily skilled in the art at the time the invention was made to enable the system of Read recording the address and port of a call signaling in the signaling message and the address and port of Real-time Transfer Protocol (RTP) and Real-time Transfer Control Protocol (RTCP) of a media stream in the signaling message; modifying the address and port of the call signaling into the address and port of the call signaling of the second network assigned for the call; modifying the address and port of RTP and RTCP into the address and port of the second network assigned for the media stream; and modifying the RTP and RTCP address and port of a media stream in the response signaling message into the recorded RTP and RTCP address and port of the media stream in the signaling message; as suggested by Young. This modification would benefit the system to efficiently route messages to the intended party.

Regarding claim 14, Read teaches the first address and port in the IP header of the signaling message is an address and port of a public network assigned by the NAT server or FW ([0089] **discloses The proxy server 42 then sends this message 52 from a pre-assigned port 55, here port number 2777, to the public IP address 17 (e.g. 206.1.1.1) of terminal B1 12; the IP packets are labelled with the IP address 44 of the proxy server 42 as source, and the public IP address 17 of terminal B1 12 as destination);**

before sending the signaling message, the NAT server or FW:modifies a source address and port in the IP header of the signaling message into the address and port of the public network ([0085] **discloses packets 50 pass through the simple Network Address Translation (NAT) function**

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in router 32, the source IP address 14 in the IP packet is changed to the public equivalent IP address 18 (e.g. 10.1.1.1 becomes 192.1.1.1))

records a mapping relationship between the source address and port and the address and port of the public network ([0120] **discloses the proxy server 42 must record the apparent or "public" IP address 18, here 192.1.1.1, of terminal A1 10 because it will not have direct access to the true originating address 14, here 10.1.1.1, as it receives the packets of media data)**

Regarding claim 15, Read teaches the first network is a private network, and the second network is a public network(see fig 1)

Regarding claim 16, Read does not explicitly teach initiating, by the proxy server, messages periodically to a packet user terminal in the first network, refreshing the mapping relationship recorded on the NAT server or FW.

However, Young teaches initiating, by the proxy server, messages periodically to a packet user terminal in the first network, refreshing the mapping relationship recorded on the NAT server or FW ([0064] **discloses scanning packets and the mapping of the IP phone addresses to host names is automatically learned and stored).**

Therefore it would have been obvious to one ordinarily skilled in the art at the time the invention was made to enable the system of Read initiating, by the proxy server, messages periodically to a packet user terminal in the first network, refreshing the mapping relationship recorded on the NAT server or FW; as suggested by Young. This modification would benefit the system to efficiently route messages to the intended party.

Regarding claim 17, Read does not explicitly teach wherein the processing device of packet voice signaling or service processing device is a soft-switching device or a voice over IP gatekeeper device.

However, Young teaches the processing device of packet voice signaling or service processing device is a soft-switching device or a voice over IP gatekeeper device (**fig.5 and [0068] discloses VoIP phones, thus the call control is a voice over IP gatekeeper**)

Therefore it would have been obvious to one ordinarily skilled in the art at the time the invention was made to enable the system of Read include the processing device of packet voice signaling or service processing device is a soft-switching device or a voice over IP gatekeeper device; as suggested by Young. This modification would benefit the system as a design choice.

Regarding claim 18, Read teaches a system for implementing traversal through a Network Address Translation (NAT) server or a firewall (FW) located in a first network (**see fig.1**) a packet user terminal located in the first network, for initiating and receiving services(**see fig.1**) the NAT server or FW, for providing services of accessing a second network for the packet user terminal and forwarding messages from and to the packet user terminal(**see fig.1**); a proxy server located in the second network outside the NAT server or FW, the proxy server being configured for(**see fig.1**) : receiving a signaling message of a call from the NAT server or FW(**see fig.1**); recording a first address and port in an IP header of the signaling message (**[0089] discloses The H.323 setup message 51 reaches the proxy server 42, which determines the location of user**

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B, and composes a similar H.323 new setup message 52 to send there. This new setup message 52 contains the identities of A and B, and the true IP address 44 (e.g. 45.6.7.8) of the proxy server 42 and the true IP address 16 (e.g. 10.1.1.1) of the terminal B1 12. The proxy server 42 then sends this message 52 from a pre-assigned port 55, here port number 2777, to the public IP address 17 (e.g. 206.1.1.1) of terminal B1 12; the IP packets are labelled with the IP address 44 of the proxy server 42 as source, and the public IP address 17 of terminal B1 12 as destination);

modifying the first address and port into a second address and port assigned for the call in the second network ([0089] discloses **The H.323 setup message 51 reaches the proxy server 42, which determines the location of user B, and composes a similar H.323 new setup message 52 to send there. This new setup message 52 contains the identities of A and B, and the true IP address 44 (e.g. 45.6.7.8) of the proxy server 42 and the true IP address 16 (e.g. 10.1.1.1) of the terminal B1 12. The proxy server 42 then sends this message 52 from a pre-assigned port 55, here port number 2777, to the public IP address 17 (e.g. 206.1.1.1) of terminal B1 12; the IP packets are labelled with the IP address 44 of the proxy server 42 as source, and the public IP address 17 of terminal B1 12 as destination);**

analyzing the information in the signaling message ([0089] discloses **The H.323 setup message 51 reaches the proxy server 42, which determines the location of user B, and composes a similar H.323 new setup message 52 to send there. This new setup message 52 contains the identities of A and B, and the true IP address 44 (e.g. 45.6.7.8) of the proxy server 42 and the true IP address 16 (e.g. 10.1.1.1) of the terminal B1 12. The proxy server 42 then sends this message 52 from a pre-assigned port 55, here port number 2777, to the public IP**

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address 17 (e.g. 206.1.1.1) of terminal B1 12; the IP packets are labelled with the IP address 44 of the proxy server 42 as source, and the public IP address 17 of terminal B1 12 as destination. Thus, Inherently the response message has to be analyzed by the proxy for forwarding purpose),

receiving a response signaling message sent to the packet user terminal([0115] discloses The "open logical channel acknowledge" message 66 gives the RTP and RTCP addresses of the terminal B1 12, here 10.1.1.1/PB2 and 10.1.1.1/PB3. This message 66 is placed into IP packets having a source IP address equal to the true IP address 16 of the terminal B1 12, and a destination address equal to the IP address 44 of the proxy server 42. The message 66 passes through the router 34 which uses the simple NAT function to forward a translated message 67 to the proxy server 42 having the true IP address 16 of terminal B1 12 changed to the public IP address 17. The packet reaches the proxy server 42, which uses the dynamic port numbers from the message plus the public IP address (206.1.1.1) of terminal B1 12 to open its pre-assigned ports 33 to send the audio signal to terminal B1 12. Furthermore, [0117] discloses the proxy server 42 transmits an "open logical channel acknowledge" response 68 to the public IP address 18 of terminal A1 10 to tell the terminal the ports that will receive the audio signal. In this example, the message lists the pre-assigned ports 2776/UDP and 2777/UDP at the proxy server 42 as the ports for RTP and RTCP respectively. The router 32 modifies the IP address of the terminal in the IP packet of the forwarded message 69, but makes no change to the response itself. The terminal receives this message 69, and begins to send the audio signal);

modifying a third address and port in the IP header of the response signaling message into the first address and port([0114] discloses the terminal B1 12 replies with an "open logical channel acknowledge, response 66 that contains the true IP addresses 16 of terminal B1 12, and the port numbers of the dynamic ports 35 that the terminal B1 has opened);;

analyzing the information in the response signaling message([0117] discloses the proxy server 42 transmits an "open logical channel acknowledge" response 68 to the public IP address 18 of terminal A1 10 to tell the terminal the ports that will receive the audio signal. Thus, Inherently the response message has to be analyzed by the proxy for forwarding purpose);;

modifying the address and port of a response signaling in the response signaling message into the recorded address and port of the call signaling([0115] discloses The "open logical channel acknowledge" message 66 gives the RTP and RTCP addresses of the terminal B1 12, here 10.1.1.1/PB2 and 10.1.1.1/PB3. This message 66 is placed into IP packets having a source IP address equal to the true IP address 16 of the terminal B1 12, and a destination address equal to the IP address 44 of the proxy server 42. The message 66 passes through the router 34 which uses the simple NAT function to forward a translated message 67 to the proxy server 42 having the true IP address 16 of terminal B1 12 changed to the public IP address 17. The packet reaches the proxy server 42, which uses the dynamic port numbers from the message plus the public IP address (206.1.1.1) of terminal B1 12 to open its pre-assigned ports 33 to send the audio signal to terminal B1 12. Furthermore, [0117] discloses the proxy server 42 transmits an "open logical channel acknowledge" response 68 to the public IP address 18 of terminal A1 10 to tell the terminal the ports that will receive the audio signal.

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In this example, the message lists the pre-assigned ports 2776/UDP and 2777/UDP at the proxy server 42 as the ports for RTP and RTCP respectively. The router 32 modifies the IP address of the terminal in the IP packet of the forwarded message 69, but makes no change to the response itself. The terminal receives this message 69, and begins to send the audio signal);

modifying the address and port of a media stream in the response signaling message into the recorded address and port of the media stream([0115] discloses The "open logical channel acknowledge" message 66 gives the RTP and RTCP addresses of the terminal B1 12, here 10.1.1.1/PB2 and 10.1.1.1/PB3. This message 66 is placed into IP packets having a source IP address equal to the true IP address 16 of the terminal B1 12, and a destination address equal to the IP address 44 of the proxy server 42. The message 66 passes through the router 34 which uses the simple NAT function to forward a translated message 67 to the proxy server 42 having the true IP address 16 of terminal B1 12 changed to the public IP address 17. The packet reaches the proxy server 42, which uses the dynamic port numbers from the message plus the public IP address (206.1.1.1) of terminal B1 12 to open its pre-assigned ports 33 to send the audio signal to terminal B1 12. Furthermore, [0117] discloses the proxy server 42 transmits an "open logical channel acknowledge" response 68 to the public IP address 18 of terminal A1 10 to tell the terminal the ports that will receive the audio signal. In this example, the message lists the pre-assigned ports 2776/UDP and 2777/UDP at the proxy server 42 as the ports for RTP and RTCP respectively. The router 32 modifies the IP address of the terminal in the IP packet of the forwarded message 69, but makes no change to the response itself. The terminal receives this message 69, and begins to send the audio

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signal); and

delivering the response signaling message to the NAT server or FW; ([0117] **discloses the proxy server 42 transmits an "open logical channel acknowledge" response 68 to the public IP address 18 of terminal A1 10 to tell the terminal the ports that will receive the audio signal. In this example, the message lists the pre-assigned ports 2776/UDP and 2777/UDP at the proxy server 42 as the ports for RTP and RTCP respectively. The router 32 modifies the IP address of the terminal in the IP packet of the forwarded message 69, but makes no change to the response itself. The terminal receives this message 69, and begins to send the audio signal).** and a soft-switching device, for providing integrated services and call control, forwarding to the proxy server the response signaling message sent to the packet user terminal when the signaling message is received([0115] **discloses The "open logical channel acknowledge" message 66 gives the RTP and RTCP addresses of the terminal B1 12, here 10.1.1.1/PB2 and 10.1.1.1/PB3. This message 66 is placed into IP packets having a source IP address equal to the true IP address 16 of the terminal B1 12, and a destination address equal to the IP address 44 of the proxy server 42. The message 66 passes through the router 34 which uses the simple NAT function to forward a translated message 67 to the proxy server 42 having the true IP address 16 of terminal B1 12 changed to the public IP address 17)**

Read does not explicitly teach recording the address and port of a call signaling in the signaling message as well as the address and port of a media stream thereof modifying the address and port of the call signaling into the address and port in the second

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network assigned for the call, and modifying the address and port of the media stream into the address and port of the second network assigned for the media stream;

However, Young teaches recording the address and port of a call signaling in the signaling message as well as the address and port of a media stream thereof(**[0078] discloses to keep track of the connections for RTP forwarding maintains a database map between private and public IP addresses and UDP ports**) ;modifying the address and port of the call signaling into the address and port in the second network assigned for the call, and modifying the address and port of the media stream into the address and port of the second network assigned for the media stream(Young , **[0075]-[0076] discloses session description protocol and SIP messages are modified so that as connections are opened for RTP streams , the appropriate public or private IP addresses and UDP ports are used**);

Therefore it would have been obvious to one ordinarily skilled in the art at the time the invention was made to enable the system of Read recording the address and port of a call signaling in the signaling message as well as the address and port of a media stream thereof modifying the address and port of the call signaling into the address and port in the second network assigned for the call, and modifying the address and port of the media stream into the address and port of the second network assigned for the media stream; as suggested by Young. This modification would benefit the system to efficiently route messages to the intended party.

Regarding claim 19, Read teaches the packet user terminal is a user terminal performing audio

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and video communications by means of H.323 protocol, Session Initiation Protocol (SIP), Media Gateway Control Protocol (MGCP), or H.248 protocol([0124] **discloses H.323 terminal**).

Regarding claim 23, Read does not explicitly teaches the proxy server is adapted to learn, after the media stream sent from the terminal arrives at the proxy server, the information of the address/port dynamically assigned on the NAT server or FW from a first-packet of the media stream; update session list items or list items of address translating relation of media streams; and establish a complete session list of the media stream.

However, Young teaches learn, after the media stream sent from the terminal arrives at the proxy server, the information of the address/port dynamically assigned on the NAT server or FW from a first-packet of the media stream; update session list items or list items of address translating relation of media streams; and establish a complete session list of the media stream([0064] **discloses scanning packets and the mapping of the IP phone addresses to host names is automatically learned and stored**).

Therefore it would have been obvious to one ordinarily skilled in the art at the time the invention was made to enable the system of Read proxy server learn, after the media stream sent from the terminal arrives at the proxy server, the information of the address/port dynamically assigned on the NAT server or FW from a first-packet of the media stream; update session list items or list items of address translating relation of media streams; and establish a complete session list of the media stream; as suggested by Young. This modification would benefit the system to efficiently route messages to the intended party.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Read in view of Young, and further in view of Bjelland to **(US-PGPUB-20020006780)**

Regarding claim 20, Read does not explicitly teach the proxy server is used for charging based on flow volumes.

However, Bjelland teaches charging based on flow volumes.

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to use proxy server for charging based on flow volumes, as suggested by Bjelland. This modification would benefit the system of Read to collect the appropriate amount of charge for the service provided.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Read in view of Young, and further in view of Daniel to **(US-PGPUB-20040033806)**

Regarding claim 21, Read does not explicitly teach proxy server is used for conducting access control of users and bandwidth management, and encrypting Quality of Service labels of media streams, Virtual Private Network labels and information

However, Daniel teaches proxy server is used for conducting access control of users and bandwidth management, and encrypting Quality of Service labels of media streams, Virtual Private Network labels and information **(315] and fig.2 discloses proxy ensures that the downlink data rate, on the cellular side, equals to the bandwidth as allocated by the flow**

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management unit 105 (FIG. 2) for the requisite flow. This refers to the gross rate, including packet retransmissions due to air-interface bit errors)

Therefore it would have been obvious to on ordinary skill in the art at the time the invention was made to enable proxy server conducting access control of users and bandwidth management, and encrypting Quality of Service labels of media streams, Virtual Private Network labels and information, as suggested by Daniel. This modification would benefit the system of Read to manage the data traffic dynamically (see, Daniel, abstract).

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Read in view of Young , and further in view of Westphal to **(US-PGPUB- 20040095913)**

Regarding claim 22, Read does not explicitly teach proxy server is used for configuring multiple pairs of addresses of the first network and the second network, and implementing traversal through multiple NAT servers or FWs ([033] **discloses Routing optimization proxy 205 implemented in various configurations. In one exemplary configuration, routing optimization proxy 205 is implemented as a server capable of enabling routing optimization for multiple clients)**

However, Westphal teaches server is used for configuring multiple pairs of addresses of the first network and the second network, and implementing traversal through multiple NAT servers or FWs

Therefore it would have been obvious to one ordinary skill in the art at the time the invention was made to enable proxy server for configuring multiple pairs of addresses of the first network and the second network, and implementing traversal through multiple NAT servers or FWs, as suggested by Westphal. This modification would benefit the system of Read by optimizing the packet routing process (see, Westphal [0033])

Response to Argument

1. Applicant's arguments with respect to claims 13, and 18, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZEWDU BEYEN whose telephone number is (571)270-7157.

The examiner can normally be reached on Monday thru Friday, 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 1-571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Z. B./

Examiner, Art Unit 2416

/Jason E Mattis/

Primary Examiner, Art Unit 2416